

Claims

1. A STAT 6 activation inhibitor which comprises a diaminopyrimidinecarboxamide derivative represented by a  
5 formula (I) or a salt thereof and a pharmaceutically acceptable carrier,



10 (symbols in the formula have the following meanings:

A<sup>1</sup>: CR<sup>5</sup> or N,

R<sup>5</sup>: -H, -lower alkyl, -O-lower alkyl or -halogen,

A<sup>2</sup>: CR<sup>6</sup> or N,

R<sup>6</sup>: -H or -halogen,

15 R<sup>3</sup>: -R<sup>0</sup>, -lower alkyl substituted with halogen, -halogen, -OR<sup>0</sup>, -S-lower alkyl, -CO-lower alkyl, -CO<sub>2</sub>-lower alkyl, -lower alkylene-OH, -hetero ring, -O-hetero ring, -N(R<sup>0</sup>)-hetero ring, -lower alkylene-hetero ring, -O-lower alkylene-hetero ring, -S-lower alkylene-hetero ring, -SO-lower alkylene-hetero ring, -SO<sub>2</sub>-lower alkylene-hetero ring, -N(R<sup>0</sup>)-lower alkylene-hetero ring, -lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -SO<sub>2</sub>-N(R<sup>0</sup>)-lower alkyl or -lower alkylene-N(R<sup>0</sup>)-CO<sub>2</sub>-lower alkylene-phenyl,

20

$R^0$ : the same or different from one another, and each is H or a lower alkyl,

n: 0 or 2,

$R^4$ : (i) when n = 2,  $-R^0$ , -lower alkyl substituted with 5 halogen,  $-OR^0$ ,  $-N(R^0)-CHO$ ,  $-N(R^0)-CO$ -lower alkyl or  $-N(R^0)-SO_2$ -lower alkyl,

(ii) when n = 0, -H, -lower alkyl substituted with halogen,  $-OH$ ,  $-NH-CHO$ ,  $-CON(R^0)_2$ , -lower alkylene substituted with halogen-OH, -lower alkylene-NH<sub>2</sub>, -lower 10 alkylene-NHCONH<sub>2</sub>, -lower alkylene-CO<sub>2</sub>H, -lower alkylene-CO<sub>2</sub>-lower alkyl, -lower alkylene-CN, or  $-CH(lower\ alkylene-OH)_2$ , or a group represented by a formula  $-X^a-R^{4a}$ ,

$X^a$ : single bond,  $-O-$ ,  $-CO-$ ,  $-S-$ ,  $-SO_2-$ ,  $-N(R^0)-$ ,  $-N(R^0)CO-$ ,  $-N(R^0)SO_2-$ , -lower alkylene-O-, -lower alkylene-15  $N(R^0)-$ , -lower alkylene- $N(R^0)CO-$ , -lower alkylene- $N(R^0)SO_2-$ , -lower alkylene- $N(R^0)CO_2-$ ,  $-N(CO-R^0)-$ ,  $-N(SO_2$ -lower alkyl)-,  $-CON(R^0)-$ , -lower alkylene-O-CO-, -lower alkenylene-CO-, -lower alkenylene- $CON(R^0)-$ , -lower alkenylene-CO<sub>2</sub>-,  $-O-(CH_2)_k-cycloalkylene-(CH_2)_m-$ ,  $-N(R^0)-(CH_2)_k-cycloalkylene-(CH_2)_m-$ ,  $-CO-(CH_2)_k-cycloalkylene-(CH_2)_m-$ ,  $-CON(R^0)-(CH_2)_k-cycloalkylene-(CH_2)_m-$  or  $-N(R^0)CO-(CH_2)_k-cycloalkylene-(CH_2)_m-$ ,

k and m, the same or different from each other, and each is 0, 1, 2, 3 or 4,

25  $R^{4a}$ : lower alkyl, phenyl, hetero ring, cycloalkyl, lower alkylene-phenyl, lower alkylene-hetero ring, lower

alkylene-OH, lower alkenyl, lower alkylene-phenyl or  
lower alkylene-hetero ring,

wherein the hetero rings in R<sup>3</sup> and R<sup>4a</sup> may be substituted with 1 to 5 of lower alkyl, halogen, -OR<sup>0</sup>, -S-lower alkyl, -S(O)-lower alkyl, -SO<sub>2</sub>-lower alkyl, lower alkylene-OR<sup>0</sup>, -N(R<sup>0</sup>)<sub>2</sub>, -CO<sub>2</sub>R<sup>0</sup>, -CON(R<sup>0</sup>)<sub>2</sub>, -CN, -CHO, -SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)-SO<sub>2</sub>-lower alkyl, -N(R<sup>0</sup>)-CO-N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)-CO<sub>2</sub>-lower alkyl, -N(R<sup>0</sup>)-CO<sub>2</sub>-cycloalkyl, -NH-C(=NH)-NH-lower alkyl, -NH-C(=N-CN)-NH-lower alkyl, hetero ring (said hetero ring may be substituted with 1 to 5 substituents selected from lower alkyl, OH and lower alkylene-OH), -lower alkylene-NH-C(=NN)-NH<sub>2</sub>, -O-phenyl, -CO-phenyl, -N(R<sup>0</sup>)-CO-lower alkyl, -N(R<sup>0</sup>)-CO-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -lower alkylene-N(R<sup>0</sup>)-CO-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -CO-N(R<sup>0</sup>)-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -CO-lower alkylene-CO<sub>2</sub>R<sup>0</sup>, -lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -lower alkylene-CO<sub>2</sub>R<sup>0</sup>, -lower alkylene-CO-N(R<sup>0</sup>)<sub>2</sub>, -lower alkylene-N(R<sup>0</sup>)-CO-lower alkyl, -lower alkylene-N(R<sup>0</sup>)-CO<sub>2</sub>-lower alkyl, -lower alkylene-N(R<sup>0</sup>)-SO<sub>2</sub>-lower alkyl, -lower alkylene-hetero ring (said hetero ring may be substituted with 1 to 5 substituents selected from lower alkyl, OH and lower alkylene-OH), -lower alkylene-O-lower alkylene-phenyl, =N-O-R<sup>0</sup> or oxo, and phenyl and cycloalkyl may be substituted with 1 to 5 of lower alkyl, OH, O-lower alkyl or N(R<sup>0</sup>)<sub>2</sub>, and

wherein the lower alkylene in R<sup>3</sup>, R<sup>4</sup>, R<sup>4a</sup> and X<sup>a</sup> may be substituted with 1 to 5 of -OR<sup>0</sup>, -CO<sub>2</sub>R<sup>0</sup>, -CON(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)COR<sup>0</sup> or hetero ring, or

R<sup>3</sup> and R<sup>4</sup> may together form \*-N(R<sup>7</sup>)-(CH<sub>2</sub>)<sub>2</sub>- , \*-(CH<sub>2</sub>)<sub>2</sub>-N(R<sup>7</sup>)- ,

5 \*-CH<sub>2</sub>-N(R<sup>7</sup>)-CH<sub>2</sub>- , \*-N(R<sup>7</sup>)-(CH<sub>2</sub>)<sub>3</sub>- , \*-(CH<sub>2</sub>)<sub>3</sub>-N(R<sup>7</sup>)- , \*-CH<sub>2</sub>-

N(R<sup>7</sup>)-(CH<sub>2</sub>)<sub>2</sub>- , \*-(CH<sub>2</sub>)<sub>2</sub>-N(R<sup>7</sup>)-CH<sub>2</sub>- , \*-C(O)-N(R<sup>7</sup>)-(CH<sub>2</sub>)<sub>2</sub>- ,

\*-(CH<sub>2</sub>)<sub>2</sub>-N(R<sup>7</sup>)-C(O)- , \*-N(R<sup>7</sup>)-CH=CH- , \*-CH=CH-N(R<sup>7</sup>)- ,

\*-N=CH-CH=CH- , \*-CH=N-CH=CH- , \*-CH=CH-N=CH- , \*-CH=CH-CH=N- ,

\*-N=CH-CH=N- , \*-CH=N-N=CH- , \*-N(R<sup>7</sup>)-N=CH- , \*-CH=N-N(R<sup>7</sup>)- ,

10 \*-O-CH<sub>2</sub>-O- , \*-O-(CH<sub>2</sub>)<sub>2</sub>-O- , \*-O-(CH<sub>2</sub>)<sub>3</sub>-O- , \*-O-(CH<sub>2</sub>)<sub>2</sub>-N(R<sup>7</sup>)- ,

\*-(CH<sub>2</sub>)<sub>2</sub>-C(O)- , \*-CH=CH-C(O)-O- or \*-N=C(CF<sub>3</sub>)-NH- ,

wherein \* indicates bonding to the position shown by R<sup>3</sup>,

R<sup>7</sup>: -H, -lower alkyl or -CO-lower alkyl,

15 B: H, lower alkenyl, lower alkynyl, lower alkyl substituted with halogen, CN, S-lower alkyl, aryl which may have a substituent(s), cycloalkyl which may have a substituent(s) or hetero ring which may have a substituent(s),

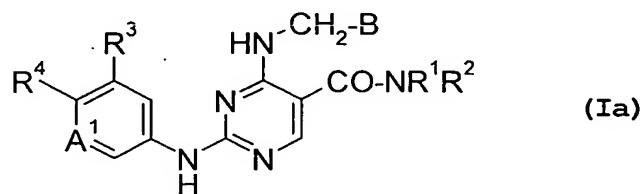
Y: single bond; or lower alkylene which may be substituted with 1 to 5 groups selected from halogen, OH, O-lower

alkyl, -NH<sub>2</sub>, -NH-lower alkyl and -N(lower alkyl)<sub>2</sub>, and

R<sup>1</sup> and R<sup>2</sup>: the same or different from each other, and each represents H, lower alkyl or O-lower alkyl which may have a substituent(s)).

2. The STAT 6 activation inhibitor described in  
claim 1, which is a Th2 cell differentiation inhibitor.

3. A diaminopyrimidinedinecarboxamide derivative  
5 represented by a formula (Ia) or a salt thereof,



(symbols in the formula have the following meanings:

$\text{A}^1$ :  $\text{CR}^5$  or  $\text{N}$ ,

10  $\text{R}^5$ : -H, -lower alkyl, -O-lower alkyl or -halogen,

$\text{R}^3$ : - $\text{R}^0$ , -lower alkyl substituted with halogen, -halogen,  
- $\text{OR}^0$ , -S-lower alkyl, -CO-lower alkyl, - $\text{CO}_2$ -lower alkyl,  
-lower alkylene-OH, -saturated hetero ring, - $\text{X}^b$ -heteroaryl,  
- $\text{X}^b$ -saturated hetero ring, - $\text{X}^b$ -heteroaryl, -lower alkylene-  
15  $\text{N}(\text{R}^0)_2$ , - $\text{SO}_2\text{-N}(\text{R}^0)$ -lower alkyl or -lower alkylene- $\text{N}(\text{R}^0)\text{-CO}_2$ -  
lower alkylene-phenyl,

$\text{X}^b$ : -lower alkylene-, -O-lower alkylene-, -S-lower  
alkylene-, -SO-lower alkylene-, - $\text{SO}_2$ -lower alkylene-,  
- $\text{N}(\text{R}^0)$ -lower alkylene- or -lower alkylene-CO-,

20  $\text{R}^0$ : the same or different from one another, and each  
represents H or a lower alkyl,

$\text{R}^4$ : - $\text{X}^a$ -saturated hetero ring, -lower alkylene-saturated  
hetero ring or -lower alkenylene-saturated hetero ring,

$\text{X}^a$ : single bond, -O-, -CO-, -S-, - $\text{SO}_2$ -, - $\text{N}(\text{R}^0)$ -,

-N(R<sup>0</sup>)CO-, -N(R<sup>0</sup>)SO<sub>2</sub>-, -lower alkylene-O-, -lower alkylene-N(R<sup>0</sup>)-, -lower alkylene-N(R<sup>0</sup>)CO- or -lower alkylene-N(R<sup>0</sup>)SO<sub>2</sub>-, -lower alkylene-N(R<sup>0</sup>)CO<sub>2</sub>-, -N(CO-R<sup>0</sup>)-, -N(SO<sub>2</sub>-lower alkyl)-, -CON(R<sup>0</sup>)-, -lower alkylene-O-CO-, -lower  
5 alkenylene-CO-, -lower alkenylene-CON(R<sup>0</sup>)-, -lower alkenylene-CO<sub>2</sub>-, -O-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>-, -N(R<sup>0</sup>)-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>-, -CO-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>-, -CON(R<sup>0</sup>)-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>- or -N(R<sup>0</sup>)CO-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>-,

10 k and m: the same or different from each other, and each is 0, 1, 2, 3 or 4,

wherein the saturated hetero rings in R<sup>3</sup> and R<sup>4a</sup> may be substituted with 1 to 5 of lower alkyl, halogen, -OR<sup>0</sup>, -S-lower alkyl, -S(O)-lower alkyl, -SO<sub>2</sub>-lower alkyl, lower  
15 alkylene-OR<sup>0</sup>, -N(R<sup>0</sup>)<sub>2</sub>, -CO<sub>2</sub>R<sup>0</sup>, -CON(R<sup>0</sup>)<sub>2</sub>, -CN, -CHO, -SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)-SO<sub>2</sub>-lower alkyl, -N(R<sup>0</sup>)-CO-N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)-CO<sub>2</sub>-lower alkyl, -N(R<sup>0</sup>)-CO<sub>2</sub>-cycloalkyl, -NH-C(=NH)-NH-lower alkyl, -NH-C(=N-CN)-NH-lower alkyl, saturated hetero ring (said hetero ring may be substituted with 1 to 5 substituents selected from lower alkyl, OH and lower alkylene-OH), heteroaryl, -lower alkylene-NH-C(=NN)-NH<sub>2</sub>, -O-phenyl, -CO-phenyl, -N(R<sup>0</sup>)-CO-lower alkyl, -N(R<sup>0</sup>)-CO-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -lower alkylene-N(R<sup>0</sup>)-CO-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -CO-N(R<sup>0</sup>)-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -CO-lower  
25 alkylene-N(R<sup>0</sup>)<sub>2</sub>, -CO-lower alkylene-CO<sub>2</sub>R<sup>0</sup>,

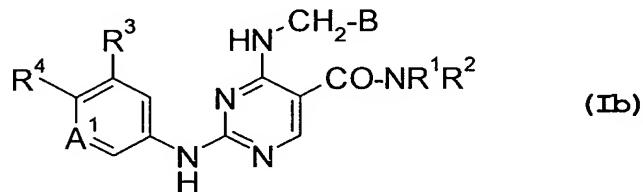
-lower alkylene- $N(R^0)_2$ , -lower alkylene- $CO_2R^0$ , -lower alkylene- $CO-N(R^0)_2$ , -lower alkylene- $N(R^0)-CO-lower alkyl$ , -lower alkylene- $N(R^0)-CO_2-lower alkyl$ , -lower alkylene- $N(R^0)-SO_2-lower alkyl$ , -lower alkylene-hetero ring (said hetero ring may be substituted with 1 to 5 substituents selected from lower alkyl, OH and lower alkylene-OH), -lower alkylene-O-lower alkylene-phenyl,  $=N-O-R^0$  or oxo, and phenyl and cycloalkyl may be substituted with 1 to 5 of lower alkyl, OH, O-lower alkyl or  $N(R^0)_2$ , and wherein the lower alkylene in  $R^3$ ,  $R^4$  and  $X^a$  may be substituted with 1 to 5 of  $-OR^0$ ,  $-CO_2R^0$ ,  $-CON(R^0)_2$ ,  $-N(R^0)_2$ ,  $-N(R^0)COR^0$  or hetero ring, or  $R^3$  and  $R^4$  may together form  $*-N(R^7)-(CH_2)_2-$ ,  $*-(CH_2)_2-N(R^7)-$ ,  $*-CH_2-N(R^7)-CH_2-$ ,  $*-N(R^7)-(CH_2)_3-$ ,  $*-(CH_2)_3-N(R^7)-$ ,  $*-CH_2-N(R^7)-(CH_2)_2-$ ,  $*-(CH_2)_2-N(R^7)-CH_2-$ ,  $*-C(O)-N(R^7)-(CH_2)_2-$ ,  $*-(CH_2)_2-N(R^7)-C(O)-$ ,  $*-N(R^7)-CH=CH-$ ,  $*-CH=CH-N(R^7)-$ ,  $*-N=CH-CH=CH-$ ,  $*-CH=N-CH=CH-$ ,  $*-CH=CH-N=CH-$ ,  $*-CH=CH-CH=N-$ ,  $*-N=CH-CH=N-$ ,  $*-CH=N-N=CH-$ ,  $*-N(R^7)-N=CH-$ ,  $*-CH=N-N(R^7)-$ ,  $*-O-CH_2-O-$ ,  $*-O-(CH_2)_2-O-$ ,  $*-O-(CH_2)_3-O-$ ,  $*-O-(CH_2)_2-N(R^7)-$ ,  $*-(CH_2)_2-C(O)-$ ,  $*-CH=CH-C(O)-O-$  or  $*-N=C(CF_3)-NH-$ , wherein \* indicates bonding to the position shown by  $R^3$ ,

$R^7$ : -H, -lower alkyl or -CO-lower alkyl,

B: aryl which may have a substituent(s) or heteroaryl which may have a substituent(s), and

$R^1$  and  $R^2$ : the same or different from each other, and each represents H, lower alkyl or O-lower alkyl which may have a substituent(s)).

5           4. A diaminopyrimidinecarboxamide derivative represented by a formula (Ib) or a salt thereof,



(symbols in the formula have the following meanings:

- 10      $A^1$ :  $CR^5$  or N,  
         $R^5$ : -H, -lower alkyl, -O-lower alkyl or -halogen,  
         $R^3$ : -saturated hetero ring or  $-X^b$ -saturated hetero ring,  
         $X^b$ : -lower alkylene-, -O-,  $-N(R^0)-$ , -O-lower alkylene-,  
        -S-lower alkylene-, -SO-lower alkylene-, -SO<sub>2</sub>-lower  
15     alkylene-,  $-N(R^0)$ -lower alkylene- or -lower alkylene-CO-,  
         $R^0$ : the same or different from one another, and each  
        represents H or a lower alkyl,  
         $R^4$ : -H, -lower alkyl substituted with halogen, -OH, -NH-  
        CHO,  $-CON(R^0)_2$ , -lower alkylene substituted with  
20     halogen-OH, -lower alkylene-NH<sub>2</sub>, -lower alkylene-NHCONH<sub>2</sub>,  
        -lower alkylene-CO<sub>2</sub>H, -lower alkylene-CO<sub>2</sub>-lower alkyl,  
        -lower alkylene-CN,  $-CH(lower\ alkylene-OH)_2$  or  $-X^a-R^{4a}$ ,  
         $X^a$ : single bond, -O-, -CO-, -S-, -SO<sub>2</sub>-,  $-N(R^0)-$ ,

-N(R<sup>0</sup>)CO-, -N(R<sup>0</sup>)SO<sub>2</sub>-, -lower alkylene-O-, -lower alkylene-N(R<sup>0</sup>)-, -lower alkylene-N(R<sup>0</sup>)CO- or -lower alkylene-N(R<sup>0</sup>)SO<sub>2</sub>-, -lower alkylene-N(R<sup>0</sup>)CO<sub>2</sub>-, -N(CO-R<sup>0</sup>)-, -N(SO<sub>2</sub>-lower alkyl)-, -CON(R<sup>0</sup>)-, -lower alkylene-O-CO-, -lower  
5 alkenylene-CO-, -lower alkenylene-CON(R<sup>0</sup>)-, -lower alkenylene-CO<sub>2</sub>-, -O-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>-, -N(R<sup>0</sup>)-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>-, -CO-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>-, -CON(R<sup>0</sup>)-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>- or -N(R<sup>0</sup>)CO-(CH<sub>2</sub>)<sub>k</sub>-cycloalkylene-(CH<sub>2</sub>)<sub>m</sub>-,

10 k and m: the same or different from each other, and each is 0, 1, 2, 3 or 4,

R<sup>4a</sup>: lower alkyl, phenyl, heteroaryl, cycloalkyl, lower alkylene-phenyl, lower alkylene-heteroaryl, lower alkylene-OH, lower alkenyl, lower alkenylene-phenyl or  
15 lower alkenylene-heteroaryl,

wherein the saturated hetero ring and heteroaryl in R<sup>3</sup> and R<sup>4a</sup> may be substituted with 1 to 5 of lower alkyl, halogen, -OR<sup>0</sup>, -S-lower alkyl, -S(O)-lower alkyl, -SO<sub>2</sub>-lower alkyl, lower alkylene-OR<sup>0</sup>, -N(R<sup>0</sup>)<sub>2</sub>, -CO<sub>2</sub>R<sup>0</sup>, -CON(R<sup>0</sup>)<sub>2</sub>, -CN, -CHO, -SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)-SO<sub>2</sub>-lower alkyl, -N(R<sup>0</sup>)-CO-N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)-CO<sub>2</sub>-lower alkyl, -N(R<sup>0</sup>)-CO<sub>2</sub>-cycloalkyl, -NH-C(=NH)-NH-lower alkyl, -NH-C(=N-CN)-NH-lower alkyl, hetero ring (said hetero ring may be substituted with 1 to 5 substituents selected from lower alkyl, OH and lower alkylene-OH), -lower alkylene-NH-C(=NN)-NH<sub>2</sub>, -O-phenyl,

-CO-phenyl, -N(R<sup>0</sup>)-CO-lower alkyl, -N(R<sup>0</sup>)-CO-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -lower alkylene-N(R<sup>0</sup>)-CO-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -CO-N(R<sup>0</sup>)-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -CO-lower alkylene-N(R<sup>0</sup>)<sub>2</sub>, -CO-lower alkylene-CO<sub>2</sub>R<sup>0</sup>, -lower alkylene-N(R<sup>0</sup>)<sub>2</sub>,

5 -lower alkylene-CO<sub>2</sub>R<sup>0</sup>, -lower alkylene-CO-N(R<sup>0</sup>)<sub>2</sub>, -lower alkylene-N(R<sup>0</sup>)-CO-lower alkyl, -lower alkylene-N(R<sup>0</sup>)-CO<sub>2</sub>-lower alkyl, -lower alkylene-N(R<sup>0</sup>)-SO<sub>2</sub>-lower alkyl, -lower alkylene-hetero ring (said hetero ring may be substituted with 1 to 5 substituents selected from lower alkyl, OH and

10 lower alkylene-OH), -lower alkylene-O-lower alkylene-phenyl, =N-O-R<sup>0</sup> or oxo, and phenyl and cycloalkyl may be substituted with 1 to 5 of lower alkyl, OH, O-lower alkyl or N(R<sup>0</sup>)<sub>2</sub>, or

the lower alkylene in R<sup>3</sup>, R<sup>4</sup>, R<sup>4a</sup> and X<sup>a</sup> may be substituted with 1 to 5 of -OR<sup>0</sup>, -CO<sub>2</sub>R<sup>0</sup>, -CON(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)COR<sup>0</sup> or

15 hetero ring, or

R<sup>3</sup> and R<sup>4</sup> may together form \*-N(R<sup>7</sup>)-(CH<sub>2</sub>)<sub>2</sub>-; \*-(CH<sub>2</sub>)<sub>2</sub>-N(R<sup>7</sup>)-; \*-CH<sub>2</sub>-N(R<sup>7</sup>)-CH<sub>2</sub>-; \*-N(R<sup>7</sup>)-(CH<sub>2</sub>)<sub>3</sub>-; \*-(CH<sub>2</sub>)<sub>3</sub>-N(R<sup>7</sup>)-; \*-CH<sub>2</sub>-N(R<sup>7</sup>)-(CH<sub>2</sub>)<sub>2</sub>-; \*-(CH<sub>2</sub>)<sub>2</sub>-N(R<sup>7</sup>)-CH<sub>2</sub>-;

20 \*-C(O)-N(R<sup>7</sup>)-(CH<sub>2</sub>)<sub>2</sub>-; \*-(CH<sub>2</sub>)<sub>2</sub>-N(R<sup>7</sup>)-C(O)-; \*-N(R<sup>7</sup>)-CH=CH-; \*-CH=CH-N(R<sup>7</sup>)-; \*-N=CH-CH=CH-; \*-CH=N-CH=CH-; \*-CH=CH-N=CH-; \*-CH=CH-CH=N-; \*-N=CH-CH=N-; \*-CH=N-N=CH-; \*-N(R<sup>7</sup>)-N=CH-; \*-CH=N-N(R<sup>7</sup>)-; \*-O-CH<sub>2</sub>-O-; \*-O-(CH<sub>2</sub>)<sub>2</sub>-O-; \*-O-(CH<sub>2</sub>)<sub>3</sub>-O-; \*-O-(CH<sub>2</sub>)<sub>2</sub>-N(R<sup>7</sup>)-; \*-(CH<sub>2</sub>)<sub>2</sub>-C(O)-; \*-CH=CH-C(O)-O- or \*-N=C(CF<sub>3</sub>)-

25 NH-, wherein \* indicates bonding to the position shown by R<sup>3</sup>,

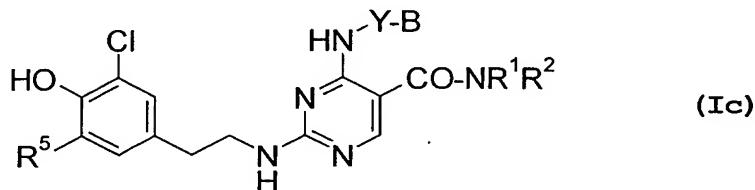
R<sup>7</sup>: -H, -lower alkyl or -CO-lower alkyl,

B: aryl which may have a substituent(s) or heteroaryl which may have a substituent(s), and

5 R<sup>1</sup> and R<sup>2</sup>: the same or different from each other, and each represents H, lower alkyl or O-lower alkyl which may have a substituent(s).

5. A diaminopyrimidinecarboxamide derivative represented by a formula (Ic) or a salt thereof,

10



(symbols in the formula have the following meanings:

R<sup>5</sup>: -H or -halogen,

B: phenyl which may have 1 to 3 substituents selected from  
15 lower alkyl and halogen,

Y: single bond or -CH<sub>2</sub>- , and

R<sup>1</sup> and R<sup>2</sup>: the same or different from each other, and each represents H or lower alkyl which may have a substituent(s)).

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6. A diaminopyrimidine selected from the group consisting of 4-benzylamino-2-[(4-morpholin-4-ylphenyl)amino]pyrimidine-5-carboxamide, 2-[(4-morpholin-4-ylphenyl)amino]-4-[(2,3,6-trifluorobenzyl)amino]pyrimidine-

5-carboxamide, 4-[(2,6-difluorobenzyl)amino]-2-[(4-morpholin-4-ylphenyl)amino]pyrimidine-5-carboxamide, 4-[ (2,6-difluorobenzyl)amino]-2-[(4-morpholin-4-ylphenyl)amino]pyrimidine-5-carboxamide, 4-[ (2-

5 methoxybenzyl)amino]-2-[(4-morpholin-4-ylphenyl)amino]pyrimidine-5-carboxamide, 4-[ (2-fluoro-6-methoxybenzyl)amino]-2-[(4-morpholin-4-ylphenyl)amino]pyrimidine-5-carboxamide, 2-{[4-[(1-methylpiperidin-3-yl)oxy]phenyl]amino}-4-[ (2,3,6-

10 trifluorobenzyl)amino]pyrimidine-5-carboxamide, 2-{[4-(1-azabicyclo[2.2.2]oct-3-yloxy)phenyl]amino}-4-[ (2,3,6-trifluorobenzyl)amino]pyrimidine-5-carboxamide, 2-[ (4-methyl-3,4-dihydro-2H-1,4-benzoxazin-7-yl)amino]-4-[ (2,3,6-

15 trifluorobenzyl)amino]pyrimidine-5-carboxamide, 2-{[4-[4-(2-amino-2-oxoethyl)piperazin-1-yl]phenyl]amino}-4-[ (2,3,6-trifluorobenzyl)amino]pyrimidine-5-carboxamide, 2-{[4-(2-morpholin-4-yloxy)phenyl]amino}-4-[ (2,3,6-

20 trifluorobenzyl)amino]pyrimidine-5-carboxamide, 2-{[4-( $\beta$ -D-glucopyranosyloxy)phenyl]amino}-4-[ (2,3,6-trifluorobenzyl)amino]pyrimidine-5-carboxamide, 4-[ (2,3,6-

25 benzylamino-2-{[2-(3-chloro-4-hydroxyphenyl)ethyl]amino}pyrimidine-5-carboxamide, 4-[ (2-benzylamino-2-{[2-(3,5-dichloro-4-hydroxyphenyl)ethyl]amino}pyrimidine-5-carboxamide, 2-[ (4-morpholin-4-ylphenyl)amino]-4-[ (2-

thienylmethyl)amino]pyrimidine-5-carboxamide, 4-{[(3-

chloro-2-thienyl)methyl]amino}-2-[ (4-morpholin-4-ylphenyl)amino]pyrimidine-5-carboxamide and 2-{ [3-(2-morpholin-4-ylethyl)phenyl]amino}-4-[ (2,3,6-trifluorobenzyl)amino]pyrimidine-5-carboxamide or salts  
5 thereof.

7. A pharmaceutical composition which comprises the diaminopyrimidinecarboxamide derivative or a salt thereof described in claims 3 to 6 and a pharmaceutically  
10 acceptable carrier.

8. The composition described in claim 7, which is a preventive or therapeutic agent for respiratory diseases.

15 9. The composition described in claim 8, which is a preventive or therapeutic agent for asthma.

10. The composition described in claim 8, which is a preventive or therapeutic agent for a chronic obstructive  
20 pulmonary disease.

11. Use of a diaminopyrimidinecarboxamide derivative represented by the general formula (I) described in claim 1, or a salt thereof, for the manufacture of an STAT 6  
25 activation inhibitor.

12. Use of a diaminopyrimidinecarboxamide derivative represented by the general formula (I) described in claim 1, or a salt thereof, for the manufacture of a Th2 cell differentiation inhibitor.

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13. A method for inhibitory activity for STAT 6 activation, which comprises administering an effective amount of a diaminopyrimidinecarboxamide derivative represented by the general formula (I) described in claim 10 1, or a salt thereof, to a mammal.

14. A method for inhibitory activity for Th2 cell differentiation, which comprises administering an effective amount of a diaminopyrimidinecarboxamide derivative 15 represented by the general formula (I) described in claim 1, or a salt thereof, to a mammal.